



December 7, 2020
20561

Maureen O'Meara, Town Planner
Town of Cape Elizabeth
320 Ocean House Road
P.O. Box 6260
Cape Elizabeth, Maine 04107

Subject: Magnolia Terrace Private Road and Resource Protection Permit Review

Dear Maureen:

We have received and reviewed a submission package dated November 27, 2020 for the subject project. The package included a November 27, 2020 cover letter from John Mitchell of Mitchell & Associates with supporting documentation and a seven-drawing plan which includes six-drawings dated November 27, 2020 as prepared by Mitchell & Associates with a 1998 boundary survey as prepared by Sebago Technics. The revisions to the plans have addressed many of our previous review comments. Based on our review of submitted material and the project's conformance to the technical requirements of Section 19-7-9 Private Road Review and Section 19-8-3 Resource Protection Permit, we offer the following comments:

1. The applicant desires to create a new lot (Lot 2) beyond the end of Alexander Drive by constructing a new 380+/- linear foot private roadway to be called Magnolia Terrace and by splitting the Lot 2 land area from the existing 10.17-acre lot (Lot 1). The new roadway will create frontage for the additional lot to be formed from the overall property. An on-site septic system will be installed to serve the new lot's sanitary sewer needs. Underground water, electrical, telephone, and cable television utility connections will also be extended to serve the new lot and a new turnaround is proposed to be constructed for emergency vehicle use.
2. In response to one of our earlier comments, the designer has clarified the intent of the survey related plans. The original September 8, 1997 Sebago Technics' Boundary Survey of the overall property is now a standalone reference plan that depicts the property's perimeter boundary. Sheet 3 is entitled Overall Site Plan and has been revised to reflect the interior lot line and right of way boundaries. The final version of Sheet 3 should be signed and sealed by a Professional Land Surveyor.
3. To mitigate for the minor increase in impervious surface area, the designer is proposing to create a rain garden to the northwest of Station 1+50 which is westerly of a proposed 12-inch culvert crossing under Magnolia Terrace. The Grading and Drainage Plan view on Sheet 5 if the culvert has been clarified to discharge into the rain garden. The designer has also added an

enlarged plan view of the rain garden contours and planting layout so that the rain garden can now be clearly approved and constructed.

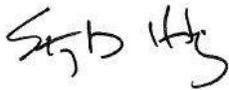
Maintenance requirements for the rain garden are included below the Rain Garden Detail on Sheet 7 and an inspection form has been provided. The entity responsible to inspect and maintain the rain garden, however, should also be clearly called out on the plan.

4. As noted in our November 11th review letter, the applicant is requesting a construction waiver of the standard 22-foot wide private local road to a 14-foot wide private roadway with 2-foot grassed shoulders. Historically, we typically have not supported such waivers in past projects, however, we do understand that the Planning Board does have the right to grant these types of waivers so we defer to the Planning Board for a final decision on this waiver.
5. The applicant has requested a drainage related waiver for roads to have an underground enclosed drainage system as well as a waiver for the need to install curbing. Given the circumstances of the proposed roadway, we support this waiver request.
6. The applicant is also requesting a waiver of a 3:1 sideslope standard to a 2.5:1 slope standard with the 2.5:1 slope being covered with an erosion control blanket. As the Town road standards are devised based on an enclosed storm drainage pipe system with no ditches, there does not appear to be Town 3:1 sideslope criteria. Regardless, we support the installation of a 2.5:1 slope being covered with an erosion control blanket as an accepted design practice when steeper than 3:1 sideslopes are desired.
7. A Resource Protection permit waiver has also been sought for the submission of high-intensity soil mapping. Given the scope of this project and the waiver of a formal stormwater study submission, we support the granting of this waiver.
8. The designer has also met with Public Works Director Jay Reynolds to discuss setting iron rod pins at locations as shown on Sheet 3, the Overall Site Plan, instead of four-inch square granite monuments. We understand from speaking with Jay that he is agreeable with this replacement; however, he would like to have two additional iron pins set at the Magnolia Terrace right of way connection with the Alexander Drive right of way.
9. We agree with the designer that based on the grading and spot grades shown on the Grading and Drainage Plan on Sheet 5 would restrict surface drainage near the turnaround area to be allowed to be conveyed across the traveled way of Magnolia Terrace. The grading does create isolated low spot to the north of the turnaround leg which if this low area overtops will drain surface water across the turnaround. The designer should assess the contribution of the runoff from the northeast to determine if a culvert is needed under the turnaround.
10. The Typical Road Section on Sheet 7 contains a "6-inch gravel" label with a leader to the base gravel layer and also a note indicating the road base gravel layer be 12-inches in depth, but a leader pointing to the subbase gravel layer. The designer should eliminate the "6-inch gravel" label and change the "12-inch" dimension in the base gravel note to a "6-inch" dimension and revise the leader so that it is pointing to the base gravel layer.

11. The application includes a list of items with a total \$85,000 construction cost estimate. The estimate should include line items for signs and the installation of the right of way monumentation, line item costs for each item, and a standard 10-percent contingency.
12. The applicant has submitted an application to the U.S. Army Corps of Engineers for the proposed wetlands impact. A copy of the Corps' approval should be provided to the Town.

We trust that these comments will assist the Board during their deliberations on this project. Should there be any questions or comments regarding our review, please do not hesitate to contact us.

Sincerely,
SEBAGO TECHNICS, INC.



Stephen D. Harding, P.E.
Town Engineer

SDH:sdh

cc: John Mitchell of Mitchell & Associates
Jay Reynolds, Public Works Director